

# FACT SHEET



## Fairfield Coal Gasification Plant Superfund Site Fairfield, Iowa

October 2002

### Introduction

The U.S. Environmental Protection Agency (EPA) conducts regular checkups, called five-year reviews, on certain Superfund sites. EPA Region 7 has completed its second five-year review of the Fairfield Coal Gasification Plant Superfund site. The site is in central Jefferson County at 107 South Seventh Street in Fairfield, Iowa.

EPA conducted the five-year review to make sure the cleanup continues to protect human health and the environment.

When the site was first discovered, several primary contaminants were found on-site in the soil and in the groundwater. These included metals, such as lead, mercury, chromium, arsenic and cyanide; and organic compounds like benzene, ethyl benzene, toluene, xylene, and poly-nuclear aromatic hydrocarbons. Three areas were identified as the source of the contamination: the gas holder pit area, the tar separator, and the relief gas holder area.

### Background

The Fairfield Coal Gasification Plant manufactured blue gas from the late 1870s to mid-1937 and carbureted water gas from mid-1937 until 1950 when the gas system in Fairfield was converted to natural gas. The site is presently not in use.

The manufactured gas process produced two main hazardous waste streams -- tar sludge and

spent iron oxide. The tar sludges were often sold or disposed in nearby pits. Some of the tar at Fairfield was pumped to a drainage ditch south of the plant. It is not known whether the iron oxide was disposed on-site or taken elsewhere.

Under EPA oversight, excavation of contaminated source material took place to a depth of 13 feet. Contaminated soil and debris totaling approximately 1,150 cubic yards was transported off site for incineration.

An on-site groundwater recovery and treatment system was put into place in 1990 to pump groundwater to where it could be treated inside the operations building. The site was fenced to restrict activities that might provide contact with the contaminants.

### Five Year Review

EPA and the Iowa Department of Natural Resources considered a significant amount of information before concluding the site remains safe. Ground water monitoring reports, operation and maintenance reports, site records, and institutional controls were reviewed. The site was inspected in June 2002. At that time, site managers were also interviewed to determine if any problems had originated while maintaining the site.

Long-term protectiveness of the remedial action will be verified through continued sampling of ground water monitoring wells located at the site. Current data indicate no exposure to ground water contaminants is occurring since the

contaminated plume is contained on site where its use is restricted. Contaminated soil at the site has been addressed through excavation and incineration, as well as through the installation of fencing, warning signs, and deed restrictions. Current monitoring indicates that the remedy is functioning as intended, and is protective of human health and the environment.

Three minor issues were noted in the report, and recommendations were made; 1) to repair a damaged section of fence, 2) to post new warning signs on the site perimeter, and 3) to cut trees around the site fencing on a regular basis.

Since contaminants remain at the site, and the site's use is restricted due to these contaminants, EPA will conduct another five-year review in 2007.

## **For More Information**

The five-year review report and detailed site information can be reviewed at the following locations:

Fairfield Public Library	EPA Records Center
Court & Washington	901 N. 5 <sup>th</sup> Street
Fairfield, IA 52556	Kansas City, KS
	66101

If you have any questions or need more information on the Fairfield Coal Gasification site or the Five-Year Review process, please contact:

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